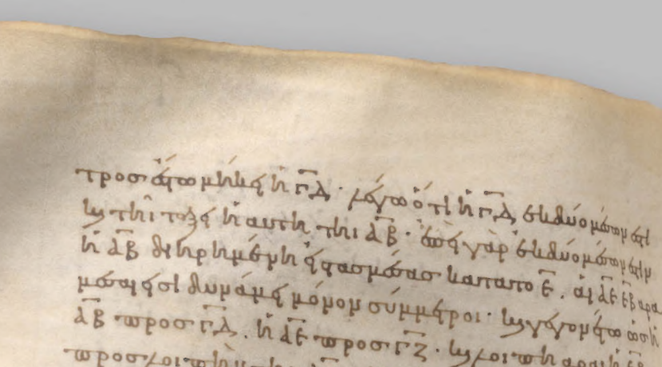
τοῖς ἡ αὐτή·

ἡ τῆι μείζονι σύμμετρος. καὶ αὐτὴ μείζων ἄρα· ἄρα μείζων
ἡ ΗΔ. καὶ τῆι ΔΒ σύμμετρος ἄρα ἡ ΗΓ, μόνον τὴν ΗΓ
μείζων ἐστί. καὶ δι' ἡρήσθω ἡ ΗΒ καθ' ὅσα τὸ Ε· αἱ ΑΕ ΕΒ ἄρα
δυνάμει εἰσὶ σύμμετροι· ποιοῦσαι τὸ μὲν συγκείμενον
ἐλάττονα ἀπ' αὐτῶν τῶν ΑΓ ΓΒ· τοῦ δ' ὑπ' αὐτῶν
μόνον· καὶ γεγράφθω τὰ αὐτὰ τοῖς πρότερον· καὶ ἔστω
ἑκάτερον τῶν ΑΒ πρὸς τῇ ΗΓ. οὕτως ἦν τὸ μὲν πρὸς τῇ
ΗΓ ἡ ΑΒ πρὸς τῇ ΓΔ. ὡς δὲ ἡ ΑΒ πρὸς τὴν ΓΔ
οὕτως ἦν τὸ μὲν πρὸς τῇ ΖΔ· καὶ ὡς ἄρα ἡ ΑΒ πρὸς τὴν ΓΔ
οὕτως ἦν τὸ μὲν πρὸς τῇ ΖΔ. συμμέτρου δὲ τῆς ΑΒ τῇ ΓΔ,
καὶ τὸ μὲν πρὸς τῇ ΖΔ τῷ ὑπὸ τῶν ΑΒ ΕΒ ἐστὶν ἴσον· καὶ
τὸ ὑπὸ τῶν ΑΒ ΕΒ ἄρα τῷ ὑπὸ τῶν ΓΔ ΖΔ ἐστὶν ἴσον.
καὶ ἐπεὶ ἴσον ἐστὶ τὸ ὑπὸ τῶν ΑΒ ΕΒ τῷ ὑπὸ τῶν ΓΔ ΖΔ,
ἔστι δὲ τὸ μὲν ὑπὸ τῶν ΑΒ ΕΒ τὸ ἀπὸ τῆς ΗΒ, τὸ δὲ ὑπὸ τῶν
ΓΔ ΖΔ τὸ ἀπὸ τῆς ΗΔ, ἴσον ἄρα ἐστὶ τὸ ἀπὸ τῆς ΗΒ τῷ ἀπὸ
τῆς ΗΔ· ἴση ἄρα ἡ ΗΒ τῇ ΗΔ. ἀλλὰ τὸ μὲν ἀπὸ τῆς ΗΒ
τετράγωνον ἐστὶ τὸ ἀπὸ τῆς ΑΒ ΕΒ ἀθροίσματι· τὸ δὲ ἀπὸ τῆς
ΗΔ τὸ ἀπὸ τῆς ΑΒ ΕΒ ἀθροίσματι· ἴσον ἄρα ἐστὶ τὸ ἀπὸ τῆς
ΑΒ ΕΒ ἀθροίσματι τῷ ἀπὸ τῆς ΑΒ ΕΒ ἀθροίσματι· ὥστε
τὸ ἀπὸ τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς ΒΕ. οὕτως τὸ ἀπὸ τῆς
ΑΒ πρὸς τὸ ἀπὸ τῆς ΓΔ. ὡς δὲ τὸ ἀπὸ τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς
ΒΕ οὕτως ἦν τὸ μὲν πρὸς τῇ ΖΔ πρὸς τὸ ἐξ ἀρχῆς· καὶ ὡς ἄρα
τὸ ἀπὸ τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς ΓΔ οὕτως ἦν τὸ μὲν πρὸς τῇ
ΖΔ πρὸς τὸ ἐξ ἀρχῆς. καὶ συνθέντι ἄρα ὡς μὲν ἡ ΑΒ πρὸς
τὴν ΓΔ οὕτως ἦν τὸ μὲν πρὸς τῇ ΗΓ πρὸς τὸ ἐξ ἀρχῆς. ὡς
δὲ τὸ ἀπὸ τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς ΓΔ οὕτως ἦν τὸ μὲν πρὸς
τῇ ΖΔ πρὸς τὸ ἐξ ἀρχῆς. ὁμοίως δὴ δείξομεν ὅτι
καὶ τὸ ἀπὸ τῆς ΒΑ πρὸς τὸ ἀπὸ τῆς ΑΕ, οὕτως τὸ
ἀπὸ τῆς ΓΔ πρὸς τὸ ἀπὸ τῆς ΓΖ· καὶ ὡς ἄρα τὸ ἀπὸ
τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς ΒΕ, οὕτως τὸ ἀπὸ
τῆς ΓΔ πρὸς τὸ ἀπὸ τῆς ΔΖ· καὶ συνθέντι ἄρα ὡς
τὸ ἀπὸ τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς ΒΕ ΕΒ, οὕτως τὸ ἀπὸ
τῆς ΓΔ πρὸς τὸ ἀπὸ τῆς ΔΖ ΖΔ· καὶ ἐναλλὰξ ἄρα
ὡς τὸ ἀπὸ τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς ΓΔ, οὕτως τὸ ἀπὸ
τῆς ΒΕ ΕΒ πρὸς τὸ ἀπὸ τῆς ΔΖ ΖΔ· καὶ ἐναλλὰξ ἄρα
ὡς τὸ ἀπὸ τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς ΒΕ ΕΒ, οὕτως τὸ ἀπὸ
τῆς ΓΔ πρὸς τὸ ἀπὸ τῆς ΔΖ ΖΔ· καὶ συνθέντι ἄρα ὡς
τὸ ἀπὸ τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς ΒΕ ΕΒ τοῖς ἀπὸ τῆς
ΑΒ ΕΒ ἄμα ῥητόν·

Διόρισμα τοῦ αβ λήμματος



τρὸς ἄρα μήκει ἡ ΓΔ· μόνον δὲ τὴν ΗΓ, δυνάμει μόνον
καὶ τῇ τοῖς ἡ αὐτή τῇ ΔΒ· ὥστε γὰρ δυνάμει μόνον καὶ
ἡ ΔΒ δυνάμει μόνον ἐστὶ σύμμετρος· καὶ ἐστὶν ἄρα
μόνον δυνάμει σύμμετροι· καὶ γεγράφθω ὡς ἡ
ΗΒ πρὸς τὴν ΓΔ· καὶ ἔστω ἡ ΑΒ πρὸς τὴν ΓΔ
πρὸς τοῖς αὐτοῖς τοῖς ἴσον τὸ μὲν πρὸς τῇ ΖΔ· συμ
μέτρου δὲ ὄντος τῆς ΗΒ τῇ ΓΔ, καὶ τὸ μὲν πρὸς τῇ
ΖΔ τῷ ὑπὸ τῶν ΑΒ ΕΒ ἐστὶν ἴσον· καὶ τὸ ὑπὸ τῶν
ΑΒ ΕΒ ἄρα τῷ ὑπὸ τῶν ΓΔ ΖΔ ἐστὶν ἴσον. καὶ ἐπεὶ
ἴσον ἐστὶ τὸ ὑπὸ τῶν ΑΒ ΕΒ τῷ ὑπὸ τῶν ΓΔ ΖΔ,
ἔστι δὲ τὸ μὲν ὑπὸ τῶν ΑΒ ΕΒ τὸ ἀπὸ τῆς ΗΒ, τὸ δὲ ὑπὸ τῶν
ΓΔ ΖΔ τὸ ἀπὸ τῆς ΗΔ, ἴσον ἄρα ἐστὶ τὸ ἀπὸ τῆς ΗΒ τῷ ἀπὸ
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ΗΔ τὸ ἀπὸ τῆς ΑΒ ΕΒ ἀθροίσματι· ἴσον ἄρα ἐστὶ τὸ ἀπὸ τῆς
ΑΒ ΕΒ ἀθροίσματι τῷ ἀπὸ τῆς ΑΒ ΕΒ ἀθροίσματι· ὥστε
τὸ ἀπὸ τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς ΒΕ. οὕτως τὸ ἀπὸ τῆς
ΑΒ πρὸς τὸ ἀπὸ τῆς ΓΔ. ὡς δὲ τὸ ἀπὸ τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς
ΒΕ οὕτως ἦν τὸ μὲν πρὸς τῇ ΖΔ πρὸς τὸ ἐξ ἀρχῆς· καὶ ὡς ἄρα
τὸ ἀπὸ τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς ΓΔ οὕτως ἦν τὸ μὲν πρὸς τῇ
ΖΔ πρὸς τὸ ἐξ ἀρχῆς. καὶ συνθέντι ἄρα ὡς μὲν ἡ ΑΒ πρὸς
τὴν ΓΔ οὕτως ἦν τὸ μὲν πρὸς τῇ ΗΓ πρὸς τὸ ἐξ ἀρχῆς. ὡς
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ὡς τὸ ἀπὸ τῆς ΑΒ πρὸς τὸ ἀπὸ τῆς ΒΕ ΕΒ τοῖς ἀπὸ τῆς
ΑΒ ΕΒ ἄμα ῥητόν·

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